

Claims:

1. A nonwoven fibrous mat comprising a blend of fibers of at least two different lengths falling within the range of about 0.12 inch and about 0.6 inch bound together with a cured binder, the binder content of the mat being in the range of about 10-25 weight percent of the finished mat, the fibers having an average fiber diameter in the range of about 9 and about 14 microns.
2. The mat of claim 1 wherein the binder is selected from a group consisting of an acrylic, a polyvinyl alcohol, a hydroxyl ethyl cellulose, a carboxyl methyl cellulose, a cellulose gums, a polyvinyl pyrrolidone, polyvinyl acetate, urea formaldehyde, melamine formaldehyde, with or without a crosslinking agent, with or without one or more plasticizers, and mixtures thereof.
3. The mat of claim 1 wherein about half of the fiber is at least about 0.45 inch long and a remainder of the fiber is less than about 0.4 inch long.
4. The mat of claim 1 wherein the mat contains about 75 wt. percent fiber that is at least about 0.45 inch long and about 25 wt. percent fiber that is about 0.2 inch long.
5. A laminate comprising a layer of nonwoven fiber mat comprising a blend of fibers of at least two different lengths falling within the range of about 0.12 inch and about 0.8 inch bound together with a cured binder, the binder content of the mat being in the range of about 10-25 weight percent of the finished mat, the fibers having an average fiber diameter in the range of about 9 and about 14 microns, a surface of said mat being bonded to at least one layer of different material.
6. The laminate of claim 5 wherein the binder is selected from a group consisting of an acrylic, a polyvinyl alcohol, a hydroxyl ethyl cellulose, a carboxyl methyl cellulose, a cellulose gums, a polyvinyl pyrrolidone, polyvinyl acetate, urea formaldehyde, melamine formaldehyde, with or without a crosslinking agent, with or without one or more plasticizers, and mixtures thereof.

7. The laminate of claim 5 wherein about half of the fiber is at least about 0.45 inch long and a remainder of the fiber is less than about 0.4 inch long.
- 8.. The mat of claim 5 wherein the mat contains about 75 wt. percent fiber that is at least about 0.45 inch long and about 25 wt. percent fiber that is about 0.2 inch long.
9. A method of making a nonwoven fibrous mat comprising a blend of fibers of at least two different lengths falling within the range of about 0.12 inch and about 0.6 inch, the fibers having an average fiber diameter in the range of about 9 and about 14 microns comprising making an aqueous slurry of the fibers, forming a wet web of the fibers from the slurry, applying an aqueous binder to the wet web and removing excess binder to produce an Loss On Ignition in the finished mat of about 10-25 weight percent, and drying the mat and curing the binder.
10. The method of claim 9 wherein the binder is selected from a group consisting of an acrylic, a polyvinyl alcohol, a hydroxyl ethyl cellulose, a carboxyl methyl cellulose, a cellulose gums, a polyvinyl pyrrolidone, polyvinyl acetate, urea formaldehyde, melamine formaldehyde, with or without a crosslinking agent, with or without one or more plasticizers, and mixtures thereof.
11. The method of claim 9 wherein a major portion of the fiber is at least about 0.45 inch long and a minor portion of the fiber is less than about 0.4 inch long.
- 12.. The method of claim 9 wherein the mat contains about 75 wt. percent fiber that is at least about 0.45 inch long and about 25 wt. percent fiber that is about 0.2 inch long.
13. The method of claim 9 wherein about half of the fiber is at least about 0.45 inch long and a remainder of the fiber is less than about 0.4 inch long.
14. The mat of claim 1 wherein about half of the fiber is at least about 0.45 inch long and a remainder of the fiber is less than about 0.4 inch long.

15. The laminate of claim 5 wherein about half of the fiber is at least about 0.45 inch long and a remainder of the fiber is less than about 0.4 inch long.